

Applicant : Allan T. Priore
Appl. No. : 10/730,706
Page No. : 2

SPECIFICATION AMENDMENT

Please replace the paragraphs beginning at Page 13, Line 20 through Page 15, Line 5 with the following replacement paragraphs.

It has been observed that the gauntlet of the present invention optionally exerts multiple [~~force-vectors~~] forces on the hand and/or digits. When these [~~force-vectors~~] forces are combined, they provide a net [~~force-vector~~] force that reconfigures the hand and/or digits in a manner that is significantly more efficient than that of conventional outriggers, which utilize only a single force to reconfigure digits. For example, with reference to Fig. 11, the single force 405 is exerted by a conventional outrigger (not shown) including a pulley positioned above the knuckles of the hand, a finger sling wrapped around the finger and an outrigger line strung over the pulley to the finger sling pulling upward on the finger. Accordingly, the conventional outrigger only exerts a single force 405 along a single line, i.e., that coincident with the outrigger line. In this configuration, the single force 405 is intended to extend the metacarpal phalangeal joint so that the finger is in an extended position.

The dynamic gauntlet of the present invention may reconfigure a hand and/or digits using a combination of multiple [~~force-vectors~~] forces, e.g., [~~force-vectors~~] forces 425 and 415. In effect, the combined [~~force-vectors~~] forces 425 and 415 exert the same force in the same direction as the single force 405 provided by a conventional outrigger. As an example, single force 405 is applied with a conventional outrigger to position 410 to exert a force of 45 units of force in the direction shown, thereby extending metacarpal phalangeal metacarpal 2. By comparison, using the gauntlet of the present invention, two [~~force-vectors~~] forces 425 and 415 are applied to position 410

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Appl. No. : 10/730,706
Page No. : 3

to yield the same net extension effect as single force 405. Specifically, ~~[force vector]~~ force 425 is applied by positioning anchor 36 on the base 20 (Fig. 1) at a position sufficient to exert a force of 60 units of force that pull acutely on the finger at position 410. ~~[Force vector]~~ Force 415 is simultaneously applied to position 410 by extending an anchor between the hand element 30 and the base 20 (Fig. 2). For example, anchor 49 acting in combination with the remainder of the thumb piece 40 provides a net force of 30 units of force pulling on position 410 in the direction of ~~[force vector]~~ force 415. Adding the ~~[force vectors]~~ forces, forces 425 and 415 yields a resultant ~~[force vector]~~ force 435 of 45 units of force, which is equal to the force provided by single force 405. Moreover, the resultant combined vector forces 415 and 425, by virtue of their combination, are coincident with the line of the ~~[vector force]~~ force 405. An added benefit of using the combined ~~[force vectors]~~ forces of the gauntlet is that as the finger extends, the resultant ~~[vector]~~ force 435 maintains its orientation.

The above description of how the gauntlet exerts combined ~~[force vectors]~~ forces on the hand and/or digits is for illustrative purposes only. It is noted that the gauntlet is capable of exerting any number of forces and/or combined ~~[force vectors]~~ forces on the hand and/or digits.